

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1. (Canceled)
2. (Canceled)
3. (Canceled)
4. (Currently Amended) ~~The method of claim 3,~~ A method for enhancing image

quality in an image encoding system, including:

applying a temporal median filter to corresponding pixel values of a previous digital video image, a current digital video image, and a next digital video image to create a noise-reduced digital video image; further including:

comparing the difference between each corresponding pixel value of each noise-reduced digital video image and each corresponding current digital video image to a threshold value to generate a difference value; and

selecting, for each final pixel value for the noise-reduced digital video image, a corresponding pixel value from the current digital video image if the difference value is within a first threshold comparison range, and a corresponding pixel value from the noise-reduced digital video image if the difference value is within a second threshold comparison range.

5. (Currently Amended) ~~The method of claim 4,~~ A method for enhancing image quality in an image encoding system, including:

applying a temporal median filter to corresponding pixel values of a previous digital video image, a current digital video image, and a next digital video image to create a noise-reduced digital video image;

comparing the difference between each corresponding pixel value of each noise-reduced digital video image and each corresponding current digital video image to a threshold value to generate a difference value; and

selecting, for each final pixel value for the noise-reduced digital video image, a corresponding pixel value from the current digital video image if the difference value is within a first threshold comparison range, and a corresponding pixel value from the noise-reduced digital video image if the difference value is within a second threshold comparison range,

wherein the threshold value is selected from the range of approximately 0.1 to approximately 0.3.

6. (Canceled)

7. (Canceled)

8. (Currently Amended) ~~The method of claim 7,~~ A method for enhancing image quality in an image encoding system, including creating a noise-reduced digital video image comprising a linear weighted sum of five terms:

a current digital video image;

an average of horizontal and vertical medians of the current digital video image;

a thresholded temporal median;  
an average of horizontal and vertical medians of the thresholded temporal median; and  
a median of the thresholded temporal median and horizontal and vertical medians of the  
current digital video image,

wherein the weights of the five terms are approximately 50%, 15%, 10%, 10%, and 15%, respectively.

9. (Currently Amended) ~~The method of claim 7,~~ A method for enhancing image quality in an image encoding system, including creating a noise-reduced digital video image comprising a linear weighted sum of five terms:

a current digital video image;  
an average of horizontal and vertical medians of the current digital video image;  
a thresholded temporal median;  
an average of horizontal and vertical medians of the thresholded temporal median; and  
a median of the thresholded temporal median and horizontal and vertical medians of the  
current digital video image,

wherein the weights of the five terms are approximately 35%, 20%, 22.5%, 10%, and 12.5%, respectively.

10. (Currently Amended) ~~The method of claim 7, further including:~~ A method for enhancing image quality in an image encoding system, including:  
creating a noise-reduced digital video image comprising a linear weighted sum of five  
terms:

a current digital video image;

an average of horizontal and vertical medians of the current digital video image;

a thresholded temporal median;

an average of horizontal and vertical medians of the thresholded temporal median;

and

a median of the thresholded temporal median and horizontal and vertical medians  
of the current digital video image;

determining a motion vector for each  $n \times n$  pixel region of the current digital video image  
with respect to at least one previous digital video image and at least one subsequent digital video  
image;

applying a center weighted temporal filter to each  $n \times n$  pixel region of the current digital  
video image and corresponding motion-vector offset  $n \times n$  pixel regions of the at least one  
previous digital video image and at least one subsequent digital video image to create a motion-  
compensated image; and

adding the motion-compensated image to the noise-reduced digital video image.

11. (Canceled)

12. (Canceled)

13. (Currently Amended) The method of claim 11, A method for enhancing image  
quality in an image encoding system, including:

determining a motion vector for each  $n \times n$  pixel region of a current digital video image with respect to at least one previous digital video image and at least one subsequent digital video image; and

applying a center weighted temporal filter to each  $n \times n$  pixel region of the current digital video image and corresponding motion-vector offset  $n \times n$  pixel regions of the at least one previous digital video image and at least one subsequent digital video image to create a motion-compensated image.

wherein each digital video image is a three-field-frame de-interlaced image.

14. (Currently Amended) ~~The method of claim 11,~~ A method for enhancing image quality in an image encoding system, including:

determining a motion vector for each  $n \times n$  pixel region of a current digital video image with respect to at least one previous digital video image and at least one subsequent digital video image; and

applying a center weighted temporal filter to each  $n \times n$  pixel region of the current digital video image and corresponding motion-vector offset  $n \times n$  pixel regions of the at least one previous digital video image and at least one subsequent digital video image to create a motion-compensated image.

wherein each digital video image is a thresholded three-field-frame de-interlaced image.

15. (Currently Amended) ~~The method of claim 14,~~ A method for enhancing image quality in an image encoding system, including:

determining a motion vector for each  $n \times n$  pixel region of a current digital video image with respect to at least one previous digital video image and at least one subsequent digital video image; and

applying a center weighted temporal filter to each  $n \times n$  pixel region of the current digital video image and corresponding motion-vector offset  $n \times n$  pixel regions of the at least one previous digital video image and at least one subsequent digital video image to create a motion-compensated image,

wherein the center weighted temporal filter is a three-image temporal filter having weights for each of such images of approximately 25%, 50%, and 25%, respectively.

16. (Currently Amended) ~~The method of claim 11,~~ A method for enhancing image quality in an image encoding system, including:

determining a motion vector for each  $n \times n$  pixel region of a current digital video image with respect to at least one previous digital video image and at least one subsequent digital video image; and

applying a center weighted temporal filter to each  $n \times n$  pixel region of the current digital video image and corresponding motion-vector offset  $n \times n$  pixel regions of the at least one previous digital video image and at least one subsequent digital video image to create a motion-compensated image,

wherein the center weighted temporal filter is a five-image temporal filter having weights for each of such images of approximately 10%, 20%, 40%, 20%, and 10%, respectively.

17. (Original) A method for enhancing image quality in an image encoding system, including:

applying a normal down filter to an image to create a first intermediate image;

applying a Gaussian up filter to the first intermediate image to create a second intermediate image; and

adding a weighted fraction of the second intermediate image to a selected image to create an image having reduced high frequency noise.

18. (Original) The method of claim 17, wherein the weighted fraction is between approximately 5% and 10% of the second intermediate image.